The State of Our Starch

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Rice. So much about Hawai'i's contemporary food system can be summarized in just this one crop. Hawai'i consumes more rice per capita than any other state, importing over 140 million pounds annually. Although Hawai'i can grow rice, and grew substantial amounts of it in the past, only a handful of token acres remains under cultivation today. White rice, by far the preferred form in Hawai'i, is milled and polished to remove the bran and germ, stripping much of the fiber, minerals, antioxidants, vitamins, amino acids, and lignans. The result is an "empty carb" that is rapidly digested, causing spikes in blood sugar levels and potentially increasing the risk of Type 2 diabetes.

Most people know that Hawai'i imports about 85–90 percent of our food. But while half of our daily calories come from carbohydrates—mainly grains and starchy tubers—Hawai'i produces less than 0.5 percent of those carbohydrates locally. If we want to talk about food security, we must reckon with the fact that to feed people, we need starches. While local production of baby cucumbers, mushrooms, and tomatoes may be quite good—60 percent of our fresh fruits and 30 percent of our vegetables are produced in-state—our self-sufficiency in the critical staple food category is virtually nonexistent. Even production of kalo and 'uala, the staples of our ancestors, no longer contributes signficantly to feeding Hawai'i. The 'uala we do grow is largely exported, while we import kalo from elsewhere in the Pacific because we do not grow enough here to satisfy the small local demand.

Crisis and Carbohydrates

Consideration of carbohydrates is important because we can never just talk about food production, but must address the whole system of activities and services that comprise a *food system*. A food system can be very simple, but becomes complex rapidly when we take into account that crops may need to be harvested, washed, packed, refrigerated or processed, stored, transported, marketed, wholesaled, retailed, and finally prepared and consumed.

Even in the best of times, concerns have been raised over the industrialization of agriculture, the environmental impacts of our food supply, and our extremely low food security. The economic crisis accompanying the COVID-19 pandemic has exacerbated these issues, showing us that our food system priorities may be all

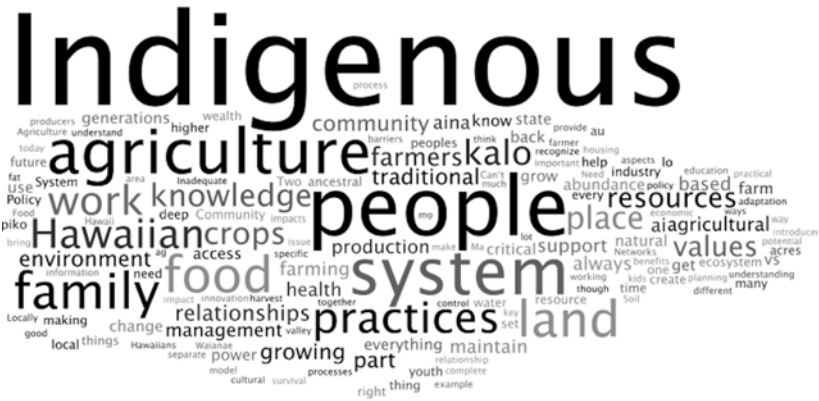
wrong—a subset, unfortunately, of much broader issues of our national and global economic system.

This is exemplified by the huge hits to local farmers resulting from the tourism shutdown. Although there are still 1.4 million people in Hawai'i who need to eat, many farmers have suffered tremendous losses because their markets were, by and large, based on supplying restaurants and hotels. That we take care of tourists before our own communities, that the cost of local food is out of reach for many local families but tourists have no problem paying for it, that in many cases we do not have even the basic infrastructure needed to support a robust local supply chain, are all indicative of long-term misplaced priorities and resources that fly in the face of our cultural values, the essential needs of our communities, and even the stated priorities of our state's constitution.

Growing Indigenous Roots

Two years ago, my graduate seminar asked the simple question "What is Indigenous agriculture?" We had surveys and discussions with a range of farmers, practitioners, academics, and even politicians to gather perspectives and opinions on the topic. While there were no conclusive answers, there were clearly several major themes, as illustrated in a word cloud generated from the students' reports.

First and foremost, more important than food or crops or land or practices was the central concept of people. This took the form of family, community, and to a lesser extent, the lāhui.



A word cloud created from the written transcripts of the speakers and subsequent discussions exploring the topic of "What is Indigenous agriculture?" in contemporary settings. Created by author.

This is important. More often than not when we talk about Indigenous agriculture, we emphasize things such as the methods, the crops, or the farmer's ethnicity. But our ancestors operated within a society both supporting and supported by the values, norms, and behaviors of the collective. Everything from decision-making and resource laws to peer pressure was situated within a cultural framework. But because of the new socioeconomic system that was imposed on Hawai'i, we are severely lacking this aspect of Indigenous agriculture today.

I think there are two major areas where we can make substantial changes and advances in this realm. The first is more practical and relates to the social structures that we use to conduct agricultural, and indeed all, business. In the modern world the corporate structure dominates, which prioritizes short-term individual gain with no personal responsibility. This flies in the face of core Hawaiian values, such as kuleana (the reciprocity of rights and responsibilities), laulima (cooperation), and ho'omau (to perpetuate and preserve).

Indigenous Business

Creativity is essential to building organizations that embody the social structure and values of indigenous agriculture in the contemporary system of business dealings. Cooperatives offer some solutions. Our farm, Māla Kalu'ulu Cooperative, is piloting a *workers' cooperative* farm for restoring traditional breadfruit cultivation. Unlike a nonprofit, those who come and work on the farm to experience and learn are not just volunteers, but partners with an ownership stake, contributing their time and patronage to a common effort. Through the investment of mostly sweat equity, they work together to become legal owners of a farm business model that offers a proportionate share of productive income and equal input into decision-making. Participants earn a stake in the game, rights to the land, a voice at the table, and a fair share of the bounty.

Kuleana.

On a larger scale, this effort has spawned the Hawai'i 'Ulu Producers Cooperative, a *producers' cooperative* that collectively processes, markets, and distributes traditional staples. By pooling and leveraging resources, multiple farms band together to accomplish what no one farm could on its own. Just as 'auwai were built, maintained, and owned by communities, the infrastructure of the 'Ulu Co-op (certified kitchen, machinery, storage, etc.) is collectively owned and used by the farmers. Just as no 'auwai could be built alone, no one farm could afford and manage the infrastructure the 'Ulu Co-op has assembled. Coming together to benefit all.

Laulima.

Other organizations, such as MA'O Organic Farms, are utilizing hybrid for-profit and nonprofit business structures to fold together multiple goals. This has allowed stronger embedding of culture and values into the overall model. Farming can be conducted in ways that have longer-term outcomes and impacts, rather than being driven solely by an economic bottom line (but not ignoring it either).

Recognizing that our actions affect our communities and environment—possibly long beyond our own lives—those impacts need to be considered in our decision-making.

Ho'omau.

While each of these structures has its own advantages, challenges, and shortcomings, they are being created within the opportunities and confines of our current business environment while incorporating methodologies and practices that better encompass our traditional values.

The Nature of Value

The second area is more esoteric, and concerns the value of food. Is growing food just another form of resource production? Or is there more that is derived?

In the past, agriculture was paramount not only to the prosperity of the people, but to all aspects of society. Agriculture was therefore wrapped in worldview and spirituality. Kalo is an ancestor and provides a familial connection to the land. Kalo was a mentor, teaching family roles and responsibility, relationships, and values. Kalo was an indicator of our environmental health and management. Food was not only something that sustained us physically, but used to reinforce community relationships through the giving and sharing of food, used to connect to our ancestors and provide self-identity, and used to celebrate and appreciate. Agricultural landscapes were not simply extractive areas for food production, but landscapes that were appreciated, utilized, and enjoyed. Farming was not just hard labor, but practiced with song and enjoyed with family. There was a quality of life associated with productive agriculture that elevated it beyond an economic resource, and leveraged it to recognize that this is the life we have. Every moment and every action should sustain the health of ourselves, our communities, and our land. It is only when we truly value what is important that we can change our priorities. Recognizing the value of our food and agriculture is a critical first step to changing and supporting local agricultural production.

Imua

While it is easy to point out what is wrong in our current system, building new pathways is the real challenge. We must find ways to create the food system, and indeed the world, that we want.

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